

REMARKS

Applicants have carefully considered the Examiner's outstanding FINAL Office Action mailed February 27, 2007, with a shortened three month response interval. Several claims have been amended to more clearly set forth the claimed invention; several others have been canceled to reduce the outstanding issues. As explained below, the pending claims are not made obvious by the prior art of record alone or in combination. Allowance of the application is respectfully requested.

Embodiments of the invention unlike conventional fire alarm or regional monitoring systems detect the presence of developing fire conditions based on audio received from various portions of the region being monitored. In one aspect of the invention, the received audio can be automatically analyzed to determine the presence of a fire profile. Such systems can be used independently or in conjunction with known types of smoke or heat detectors.

Mori U.S. Patent 4,851,823 the primary document upon which all rejections are based discloses a system which determines the presence of fire in a guest room by means of a fire detector 1, see Fig. 1 thereof. In response to a detected fire condition, a lamp corresponding to the location of the currently active fire detector can be "turned on through the operation of the fire detector 1." (Mori, col. 2, ll. 21, 22). Thus, Mori teaches the use of a fire detector, which would conventionally be for example a smoke or heat detector 1 located in the region of interest to make the determination of a developing fire condition. Conventional detectors compare a sensor output to a predetermined threshold value. This determination, represented by an electrical signal, is then coupled to control box 10 where it is used to illuminate a light bulb 16 (see Fig. 2 thereof). Mori appears to provide only a single light bulb 16 for all of the rooms which might have fire detectors which are coupled to the control box 10.

Unlike the claimed invention, Mori includes no circuitry which would automatically analyze received audio to determine the presence of a fire profile. Smoke detectors

respond to airborne particulate matter. Heat detectors are thermally based.

Attached hereto is an English translation of Buil et al. German Patent Document 3721414 A1. Buil et al. discloses a hand held infra-red sensitive sensor B, F (see Fig. 1, Fig. 2 thereof) which is in turn coupled to an amplifier V and a tone converter/tone generator T. Sensed infra-red signals are output via a speaker L as audio.

Buil et al. contains no circuitry for evaluating the signals from the infra-red sensor B, S. Rather, the fireman carrying the unit has to make a determination that a fire condition is or is not being detected. For example, Buil will emit audio outputs as a response to infra-red signals from individuals in a region, furnaces, water heaters, or the like, all without limitation. In these instances it is the individual carrying the unit who has to make a determination as to the source of these signals.

In rejecting various of the claims as unpatentable over Mori in view of Buil et al., the Office Action at the top of page 3 stated:

"Buil teaches a fire detector using an acoustic receiver to analysis [sic] the received audio signal to determine whether there is a fire." (Office Action page 3, ll 3-5)

In view of the attached English translation of Buil et al., it is submitted that the above statement is inaccurate and does not reflect the structure and nature of the apparatus of Buil et al. As noted above, that apparatus carries out absolutely no analysis. It makes no determination as to whether or not a fire condition is being sensed. It will emit the same signals in the presence of individuals, furnaces, water heaters and the like, all without limitation.

Claim 1, currently amended with the limitation of claim 4, given the above noted deficiencies of Mori as well as Buil et al., as well as related depending claims, are not rendered obvious by that combination.

As currently amended, claim 1 requires the following limitation:

"which includes at least one of circuitry or software to automatically analyze audio received at the control unit with respect to at least one fire signature, to establish if an alarm condition is present in the vicinity of at least one of the modules." (Amended claim 1)

As described above, neither Mori nor Buil et al. address, disclose or discuss detectors or systems in accordance with amended claim 1 and its dependant claims. Mori discloses a fire detector 1 which makes a local fire determination, most likely via sensing smoke or heat. This determination is forwarded to control unit 10. Buil et al., makes no fire determination as discussed above whatsoever.

Both independent claims 11, 25 (and their related dependent claims include limitations similar to the above from amended claim 1.

For example, claim 11 includes:

"automatically analyzing the sensed audio signals and responsive to recognizing an audio fire, signature, displaying locations of organization thereof."

Claim 25 includes:

"where the control unit analyses and evaluates received audio with respect to at least one fire signature."

It is well recognized that silence cannot be a basis for a proper *prima facie* case of obviousness. In view of the above it is requested that the rejections of pending claims 1, 2, 5, 6, 9-11, 14, 16, 25, 27-29 be withdrawn.

Thus, the pending claims are not rendered obvious by Mori alone or in combination with Buil, and/or Markowitz et al., Saitta, and/or O'Mahoney et al. Hence, for at least the above reasons it is requested that the pending claims be allowed.

Appl. No. 10/716,157
Amendment B
In Reply to FINAL Office Action mailed Feb. 27, 2007

Allowance of the application is requested. Applicant's attorney would like an opportunity to discuss the Office Action, the prior art and the pending claims with the Examiner. He will call shortly to schedule a telephone interview.

Respectfully submitted,

Dated: May 11, 2007

By



Paul M. Vargo
Reg. No. 29,116
WELSH & KATZ, LTD.
120 South Riverside Plaza, 22nd Floor
Chicago, Illinois 60606
Phone: (312) 655-1500
Fax: (312) 655-1501